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10/668,819	09/22/2003	Russell D. Wilfert	H0005158	1949
128	7590	11/01/2005		
HONEYWELL INTERNATIONAL INC. 101 COLUMBIA ROAD P O BOX 2245 MORRISTOWN, NJ 07962-2245			EXAMINER FETSUGA, ROBERT M	
			ART UNIT 3751	PAPER NUMBER

DATE MAILED: 11/01/2005

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

Application Number: 10/668,819  
Filing Date: September 22, 2003  
Appellant(s): WILFERT, RUSSELL D.

MAILED

NOV 01 2005

Group 3700

Paul D. Amrozowicz  
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed September 20, 2005  
appealing from the Office action mailed April 08, 2005.

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) *Status of Claims***

The statement of the status of claims contained in the brief is correct.

**(4) *Status of Amendments***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) *Summary of Claimed Subject matter***

The summary of claimed subject matter contained in the brief is correct.

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**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

2,506,097	Melichar	5/1950
2,391,278	Stark	12/1945

**(9) Grounds of Rejection**

I. Claims 1, 2, 4-12, 14-17, 19 and 20 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 1 recites a "segment seal" (106) and a "sealed vent region" (418). The claim further recites the vent region has a "cross sectional area that is less than the defined cross sectional flow area." Claims 11 and 17 recite similar subject matter. Implementation of this subject matter is neither taught

by the instant disclosure nor evident to the examiner. The defined cross-sectional flow area (210) being significantly larger than the vent region area (208) would preclude any "net force" acting on the segment seal assembly 106 toward the outlet (110), as discussed at paragraph 0022, lines 12-16 of the specification. Furthermore, there would not appear to be any reduction in "differential pressure load across the segment seal assembly 106" as discussed at paragraph 0026, lines 1-3 of the specification. Rather, the pressure differential would appear to be increased due to the relative sizes of the cross-sectional areas. The Stark reference is cited for disclosure concerning accepted fundamental operation of plug valve having pressure assisted sealing based upon cross-sectional flow areas. Note the paragraph bridging both columns on page 2 of Stark.

II. Claims 1-3 and 5-16, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Melichar. The Melichar reference discloses a valve assembly comprising: a valve body 1 including openings (inlets and outlets) 8; a plug 12 including a flow passage 20; a segment seal assembly including a body 24 having an opening 25, a seal gland (receiving 28), a seal 28, and a vent region 26; a backup ring 29; a spring 31; a bearing assembly 6; and engagement sections 15, as claimed. Re claims 1 and 10, any one of the openings 8

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would appear to meet the structure defined by the term "outlet". Re claims 1 and 11, the cross-sectional areas of the body inlet/outlet and vent region in the Melichar valve assembly are balanced to enable use of minimum spring bias (col. 4 lns. 20-25). To reduce the cross-sectional area of the vent region would have been obvious in order to enable use of a stronger spring.

III. Claims 4 and 17-20, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Melichar and Brown. The Melichar valve assembly further comprises an actuator assembly 39. Although the actuator assembly of the Melichar valve assembly may not receive control signals (automated), as claimed, attention is directed to the Brown reference which discloses an analogous valve assembly which further includes an automated actuator assembly (col. 2 lns. 39-44). Therefore, in consideration of Brown, it would have been obvious to one of ordinary skill in the art to associate control signal operation with the Melichar valve assembly in order to facilitate use in remote locations.

#### **(10) Response to Argument**

I. Appellant argues at page 7 of the brief (and again at page 9) it is not necessary for an invention disclosure to

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enable one of ordinary skill in the art to make and use a perfected, commercially viable embodiment absent a claim limitation to that effect. The examiner agrees, and notes appellant's claims recite a "closed position" of the valve, where there is no fluid communication between the valve plug flow passage, and the inlet and outlet ports of the valve body. Here, a "closed position" appears to be contradicted by the geometry of the claimed invention taken with the description thereof in the specification. Of course, this comparison is based upon evidence of what is considered accepted in the art. Note the Stark disclosure discussed supra. Appellant argues at page 8 of the brief it is unclear what relevance the magnitudes of the claimed cross-sectional areas have on the patentability of the claims. In response, it is well settled that a claim is patentable when particular statutory requirements have been met. These requirements include providing a disclosure of the claimed invention which teaches one how to make and use same. In the instant case, appellant's disclosure teaches one that the claimed cross-sectional areas cooperate in such a way as to contradict what would be expected from the prior art. Again, note the Stark disclosure discussed supra. Appellant further argues at page 8 of the brief it is the examiner's position that a particular "benefit" of the invention is not found in the

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claims, and this has no bearing on whether the claimed invention can be made or used. However, the examiner has taken no such "position". Rather, the examiner has merely attempted to understand appellant's claimed invention based upon the common knowledge in the art. Ascertaining an understanding of the claimed invention became frustrated when the instant disclosure was reconciled with the Stark disclosure, for example.

Appellant argues at pages 8-9 of the brief there are additional forces acting on the segment seal. The examiner does not necessarily disagree, however, no such additional forces are recited in the rejected claims. Appellant argues at page 9 of the brief the examiner has provided no support to show the contradictory operation of the claimed invention. However, this position appears to ignore the Stark disclosure referred to by the examiner. Appellant argues at pages 9-10 of the brief the seal (406) itself provides sufficient force to prevent the segment seal assembly (106) from being spaced from the outlet (110), as described in paragraph 0023 of the instant specification. The examiner can not agree. As accurately quoted by appellant, the noted paragraph merely states the seal (406) is compressed "over a wide range of fluid pressures." This is not equivalent to the seal (406) exerting a force on the seal assembly (106) towards the outlet (110) as implied by



appellant's argument. Rather, the seal (406) would be compressed when pressure is applied to the seal assembly (106), with the result of sealing off the vent region (418).

II. Appellant argues at pages 11-12 of the brief Melichar discloses a cross-sectional area for the vent region "that is no less than equal to" the port cross-sectional flow area (emphasis original). The examiner can not agree. Initially, it is noted appellant has not specified where in the Melichar disclosure this exclusive teaching can be found. In any event, Melichar discloses at lines 20-25 of column 4 that the cross-sectional areas should be balanced "so that the spring does not have to operate against the fluid pressure in the holding of the valve seated and the port closed." This teaching does not appear to be as exclusive as appellant implies. Rather, Melichar is describing a preferred embodiment where the spring bias in question need not overcome any fluid pressure bias due to the relative sizes of the cross-sectional areas when closing a port. Further in this regard, the noted cross-sectional areas are not even defined in the claims of Melichar, which would also appear to indicate such is a non-exclusive feature. Ultimately, the Melichar disclosure does teach one of ordinary skill in the valve art a relationship between the relative sizes of the cross-sectional areas and the spring bias. Given these

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variables, a valve designer would contemplate either providing a relatively larger vent region cross-sectional area to allow use of a weak spring together with the fluid pressure to hold the port closed and which would lessen required rotor turning torque absent fluid pressure, or providing a relatively smaller vent region cross-sectional area to allow for use of a stronger spring absent fluid pressure to hold the port closed and which would provide greater spring closing force under vented port conditions. As the area/spring relationship is explicitly taught by the Melichar disclosure, a "suggestion" is also present therein where manipulation of the noted variables would not prevent the Melichar valve assembly from selectively distributing fuel.

III. Appellant has not substantively argued this ground of rejection beyond noting claim dependency.

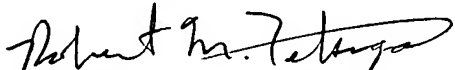
**(11) Related Proceeding(s) Appendix**

None.

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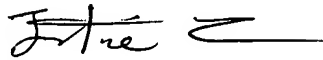
For the above reasons, it is believed that the rejections should be sustained:

Respectfully submitted,

  
Robert M. Fetsuga

Conferees:

jy



jb

